CDM
125 South Wacker Drive, Suite 600
Chicago, Illinois 60606
tel: 312 346-5000
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August 3, 2005

Mr. Thomas Williams
Illinois Environmental Protection Agency
12 Gunia Drive
LaSalle, IL 61301

Subject: 2010300074 - Winnebago County
Southeast Rockford Groundwater Contamination Superfund Site
Source Area 4 Interim Soil Removal
Rockford, Winnebago County, Illinois
Superfund/Technical

Dear Mr. Williams:

This letter describes interim soil removal activities proposed in response to significant contamination encountered during previous pre-design field studies performed at Source Area 4 (Area 4).

Project Description

Source Area 4 is located east of Marshall Street, south of Harrison Avenue and north of Alton Avenue in a mixed industrial/commercial and residential area. Area 4 is comprised of a building, and associated parking lot that formerly housed Swebco Manufacturing, Inc. (Swebco), located at 2630 Marshall Street. Currently, the building is occupied by a wood pallet manufacturing and refurbishing operation.

The subsurface in this area primarily consists of medium-grained sand to a depth of approximately 30 feet below ground surface (bgs) overlain by silty topsoil (approximate 5 feet) in most areas. Groundwater in the unconsolidated sediments beneath Area 4 flows in a west-northwesterly direction.

The source of the volatile organic compound (VOC) contamination in Source Area 4 was found to be the former Swebco facility, which is no longer in operation. Previous subsurface investigations in Source Area 4 determined that soil contamination was present in the area beneath the plant parking lot. There is an 8-foot thick residual non-aqueous phase liquid (NAPL) zone at the depth of the water table, which is approximately 30 feet below ground surface. This NAPL layer is not present as a

floating layer but is trapped in the soil pore spaces. Downgradient groundwater contains elevated concentrations of 1,1,1-trichloroethane (1,1,1-TCA), the primary VOC in Source Area 4. Low levels of benzene, ethylbenzene, toluene, xylenes, trichloroethene (TCE), dichloroethene (DCE) and dichloroethane (DCA) are also present in groundwater downgradient of Source Area 4.

More recent investigations conducted to support the remedial design determined that VOC contamination is present in the soils beneath the building in the south loading dock area as well as just outside the southwestern portion of the building in what appears to have been a former outside loading dock area. Samples of this contaminated soil were collected below the southern portion of the former Swebco building. In one sample, GP-301D, contaminants detected above Illinois EPA Tiered Approach to Corrective Action Objectives (TACO) Tier 1 Soil Remediation Objectives (SRO) include 1,1,1-TCA, 1,1,2-trichloroethane (1,1,2-TCA), 1,1-dichloroethene (1,1-DCE), carbon tetrachloride , tetrachloroethene (PCE) and TCE. Carbon tetrachloride and PCE were contaminants not previously detected in Area 4.

By using a common "rule of thumb" for comparing total concentrations to toxicity characteristic leaching procedure (TCLP) concentrations, the total concentration of 1,1-DCE in sample GP-301D indicates that the material is likely hazardous per 40 CFR 261. In a boring (GP-309) located about eight feet west of the building, similar contamination was encountered starting at approximately 6 inches bgs. GP-309 was advanced in an area approximately 20 by 50 feet that is not covered by any type of engineered barrier. Although a sample was not collected from GP-309, layers of free product or NAPL were also observed and confirmed using a field test and it was assumed that the nature of contamination was similar to that in sample GP-301D. It is this material close to the surface adjacent to the building that requires removal prior to implementation of the Final Comprehensive Remedial Action for Area 4.

Based on remedial investigations and site-specific risk assessment, Remedial Action Objectives (RAO) were developed. The Area 4 RAOs provide a general description of what the remedial action will accomplish and are as follows:

- Prevent the public from ingestion of soil, and direct contact with soil containing contamination in excess of state or federal standards or that poses a threat to human health

- Prevent the public from inhalation of airborne contaminants in excess of state or federal standards or that pose a threat to human health

- Prevent the further migration of contamination from Area 4 that would result in degradation of site-wide groundwater or surface water to levels in excess of state or federal standards, or that pose a threat to human health or the environment

A number of potential remedial action alternatives for Area 4 were developed and evaluated based on RAOs, remediation goals and comparative evaluation criteria. The detailed comparative analysis of Area 4 remedial alternatives is discussed in detail in the ROD. Based on the comparative analysis, the remedy selected for Area 4 includes institutional controls, soil excavation with on-site low-temperature thermal desorption, and leachate containment and treatment. Due to the fact that significant free product was discovered near the surface in an area without engineered barriers, interim soil removal activities were deemed necessary prior to the implementation of the Final Remedy detailed in the ROD. The lack of engineered barriers such as concrete or asphalt cover may increase the potential for migration of contamination to groundwater, public contact with contaminated soils and/or migration of airborne contaminants from the area.

Field Activities

Prior to determining the interim soil removal activities, CDM advanced six soil borings (GP-401 through GP-406) to 4 feet below grade surface (bgs) at the locations shown in Figure 1 and two soil samples were collected for analysis. The soil borings were conducted to delineate the contaminated soil area and soil sample WC-1 was collected from soil borings GP-402 and GP-403 for analysis of hazardous waste characteristics to determine disposal requirements and soil sample A4-4020104 was collected from GP-402 for analysis of VOCs, PNAs and metals to determine health and safety precautions required for on-site workers.

Soil borings GP-402, 403, 404, 405 and 406 exhibited signs of contamination based on visual observations of product, photoionization detector (PID) readings, and a distinct odor consistent with the March 2004 samples as summarized in Table 1. Free product was observed from 6 inches bgs to 4 feet bgs in all five borings noted above.

Table 1
Interim Soil Area
Field Observations

Soil Boring	Field Observations
GP-301	Visible free product, PID reading ~ 20 ppm_v, significant odors emanating from soil
GP-309	Visible free product, PID readings >1,000 ppm_v, significant odors emanating from soil
GP-401	No visible staining, PID reading < 0 ppm_v
GP-402	Visible free product, PID reading >175 ppm_v, significant odors emanating from soil
GP-403	Visible free product, PID reading >900 ppm_v, significant odors emanating from soil
GP-404	Visible free product, PID readings >1,000 ppm_v, significant odors emanating from soil
GP-405	Visible free product, PID reading ~53 ppm_v, significant odors emanating from soil
GP-406	Visible free product, PID readings ~150 ppm_v, significant odors emanating from soil

Results

The results of the soil sample collected at soil boring GP-301 are summarized in Table 2. The results of this soil sample exceed PRGs and TACO SROs which is what initiated the Interim Soil Removal Activities. The analytical results for soil sample A4-4020104 (see Attachment 2) and GP-301 indicate that air monitoring should be conducted for the following contaminants detected in Area 4; 1,1,1-TCA, 1,1,2-TCA, 1,1-DCE, carbon tetrachloride , PCE, TCE, vinyl chloride and naphthalene. These contaminants are sufficiently close to inhalation SROs to be a concern based on PID readings, significant odor and free product contamination observed throughout the area. The waste characterization results are provided in Attachment 2. The waste characterization sample collected does not exhibit the characteristics of hazardous waste as defined in 40 CFR 261 for ignitability, corrosivity, reactivity or toxicity.

Table 2
Interim Soil Area
Contaminants of Concern

Analytical Parameter	Soil Remediation Goal (mg/kg)	Soil Sample GP-301D 14' to 16' bgs (mg/kg)
1,1,1-TCA	9.118	140
1,1,2-TCA	0.02	0.23
1,1-DCE	0.06	23
Carbon Tetrachloride	0.07	8.4
PCE	0.06	0.22
TCE	0.06	0.36

Conclusions

Based on the results of the March 2004 and June 2005 field observations, sample results and subsequent discussions with the Illinois EPA PM, it was determined that the area of impacted soil not currently covered by asphalt or concrete represents a threat to human health and the environment, which should be addressed prior to the implementation of the final remedy. The proposed excavation area is provided in Figure 1. The contaminants present in the sample collected in the proposed excavation area do not exhibit concentrations of VOCs that are a health and safety issue for the public during the excavation activities, however, the odors observed during the field activities are significant and could be a source of nuisance and be viewed with concern by surrounding property owners.

Interim Soil Removal Activities

Interim soil removal activities will include the removal of impacted soil to a depth of approximately 4 feet bgs in the area outline in Figure 1 which is approximately 23 feet by 40 feet. This is the depth to which the excavation can safely extend without requiring additional measures to structurally shore the adjacent building, based on an assumed footing depth of 4 feet. Based on these dimensions, approximately 135 cubic yards of contaminated soil will be excavated and disposed of as special waste. Subsequently, a temporary liner will be placed in the excavation, and the excavation will be backfilled and compacted with clean fill which will act as an engineered barrier until the final remedy is implemented. Soil removal activities will be

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conducted in several sections to limit the release of VOCs to ambient air and prevent an open excavation overnight. During excavation activities an odor and dust suppressant foam such as Rusmar AC-645 (Attachment 3) will be used to further limit the release of VOCs. The excavation will be lined and backfilled prior to leaving the site each day. In addition to foam and segmentation of the excavation area, liner and fill material will be available at all times to immediately cover the excavation area in the event of excessive odors or VOC levels. Excavation activities are expected to be conducted over approximately three days.

Fenceline air monitoring using PIDs will be conducted while any intrusive work activities occur and an exceedance of 1 ppm_v above background sustained for one minute will constitute an action level. If an action level is observed, intrusive activities will be stopped immediately and the excavation area will be covered by the suppressant foam, liner and fill material. On-site health and safety requirements include PID monitoring in the breathing zone and detector tubes for the contaminants of concern (carbon tetrachloride, vinyl chloride and 1,1-DCE). The action level for on-site workers will be 1 ppm_v with a detection of a contaminant of concern or a PID reading above 15 ppm_v in the breathing zone. Action levels will require supplied air for all workers in the exclusion zone because respirators are not sufficient for all contaminants of concern. Additional personal protective equipment required will be protective clothing such as tyvek, safety glasses and gloves for any personnel that will come into contact with the soil.

If you have any questions or comments, please contact me at (312) 251-8337.

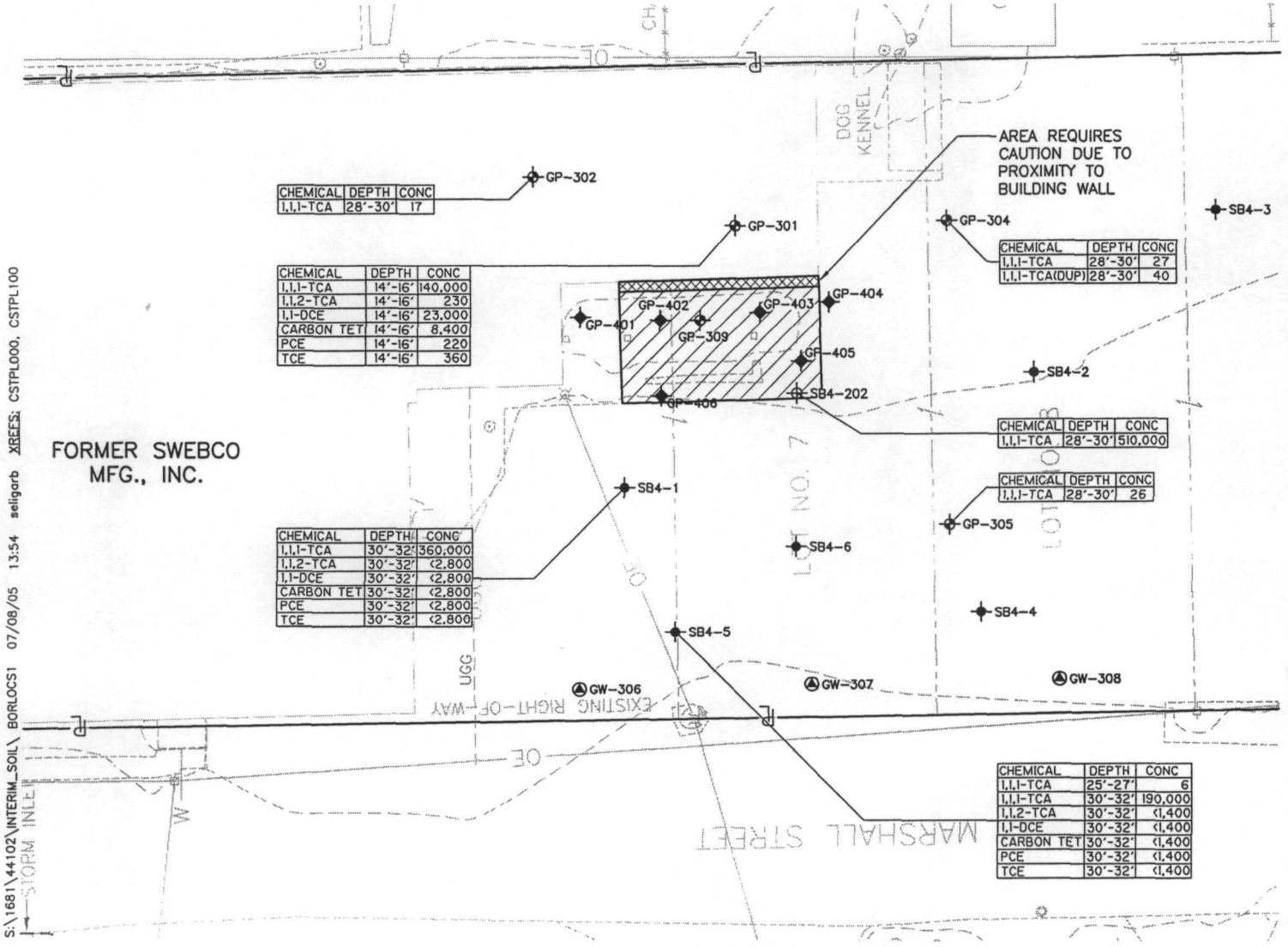
Sincerely,

John Grabs, P.G.
Project Manager
Camp Dresser & McKee Inc.

cc: Terry Ayers, Illinois EPA
Russ Hart, USEPA Region 5
Tracey Hurley, Illinois EPA
Virginia Forrer, Illinois EPA
File, Illinois EPA BOL

Attachment 1

Figures



N

1" = 20'

10 0 20

LEGEND:

1,1,1-TCA	1,1,1-TRICHLOROETHANE
1,1,2-TCA	1,1,2-TRICHLOROETHANE
1,1-DCE	1,1-DICHLOROETHENE
CARBON TET	CARBON TETRACHLORIDE
PCE	TETRACHLOROETHENE
TCE	TRICHLOROETHENE
(DUP)	INDICATES DUPLICATE SAMPLE

RIGHT-OF-WAY

CONTOUR MAJOR

CONTOUR MINOR

EDGE OF PAVEMENT

MONITORING WELL

SOIL BORING LOCATION 2005

SOIL BORING LOCATION 2004

SOIL BORING LOCATION 1996

SOIL BORING LOCATION 1993

TEMPORARY WELL POINT LOCATION

PROPERTY LINE

GROUNDWATER MANAGEMENT ZONE

EXCACVATION AREA

NOTES:

1. ALL SAMPLES ANALYZED FOR VOLATILE ORGANIC COMPOUNDS RESULTS SHOWN ONLY WHERE CONCENTRATIONS ABOVE REPORTING LIMITS. COMPLETE ANALYTICAL DATA PROVIDED IN CONTRACT DOCUMENTS.
2. CONCENTRATIONS ARE IN ug/kg.
3. RESULTS WHERE DETECTION LIMITS ARE ABOVE TACO TIER 1, MIGRATION TO GROUNDWATER LIMITS ARE SHOWN <XXXXX.
4. SOIL CONTAMINATION AT GP-309 AND GP-402, THROUGH GP-406 ASSUMED TO BE SIMILAR TO GP-301 CONTAMINATION AT 14 TO 16 FEET.
5. EXCAVATION AREA WILL NOT EXTEND INTO AREA WITH EXISTING ENGINEERED BARRIER.

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Figure 1
SOURCE AREA 4 INTERIM SOIL REMOVAL

Attachment 2

Analytical Results

STAT Analysis Corporation
2255 West Harrison St., Suite B, Chicago, IL 60612-3505
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

June 24, 2005

Camp, Dresser and McKee
125 S. Wacker Drive, Suite 600
Chicago, IL 60606
Telephone: (312) 251-8315
Fax: (312) 346-5228

RE: 1681-40475, SE Rockford Area 4 STAT Project No: 0506473

Dear Shawn Shiffer:

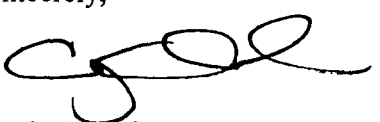
STAT Analysis received 1 sample for the referenced project on 6/15/2005. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC part 186 (Accreditation #100445). Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 563-0371.

Sincerely,



Craig Chawla
Project Manager

STAT Analysis Corporation

Date: June 24, 2005

Client: Camp, Dresser and McKee
Project: 1681-40475, SE Rockford Area 4
Lab Order: 0506473

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0506473-001A	A4-4020104		6/14/2005 8:45:00 AM	6/15/2005
0506473-001B	A4-4020104		6/14/2005 8:45:00 AM	6/15/2005

STAT Analysis Corporation

Date: *June 24, 2005*

CLIENT:	Camp, Dresser and McKee
Project:	1681-40475, SE Rockford Area 4
Lab Order:	0506473

CASE NARRATIVE

In VOC soil LCS/LCSD analyzed 06/20/05, Bromomethane had low recovery (57%/61% recovery, QC Limits 70-130%).

Sample A4-4020104 (0506473-001) has Chloroethane reported with an "E" flag, exceeded the calibration curve range. The medium level dilution was below the reporting level, "J". The more conservative value is reported.

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Report Date: June 24, 2005
Print Date: June 24, 2005

Client:	Camp, Dresser and McKee	**Client Sample ID:**	A4-4020104
Lab Order:	0506473	**Tag Number:**	
Project:	1681-40475, SE Rockford Area 4	**Collection Date:**	6/14/2005 8:45:00 AM
Lab ID:	0506473-001A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **6/16/2005**		Analyst: **MP**
Acetone	0.1	0.045		mg/Kg-dry	1	6/21/2005
Benzene	ND	0.0045		mg/Kg-dry	1	6/21/2005
Bromodichloromethane	ND	0.0045		mg/Kg-dry	1	6/21/2005
Bromoform	ND	0.0045		mg/Kg-dry	1	6/21/2005
Bromomethane	ND	0.009		mg/Kg-dry	1	6/21/2005
2-Butanone	0.092	0.009		mg/Kg-dry	1	6/21/2005
Carbon disulfide	0.015	0.0045		mg/Kg-dry	1	6/21/2005
Carbon tetrachloride	ND	0.0045		mg/Kg-dry	1	6/21/2005
Chlorobenzene	ND	0.0045		mg/Kg-dry	1	6/21/2005
Dibromochloromethane	ND	0.0045		mg/Kg-dry	1	6/21/2005
Chloroethane	0.99	0.009	E	mg/Kg-dry	1	6/21/2005
Chloroform	ND	0.0045		mg/Kg-dry	1	6/21/2005
Chloromethane	ND	0.009		mg/Kg-dry	1	6/21/2005
1,1-Dichloroethane	2.5	0.26		mg/Kg-dry	50	6/21/2005
1,2-Dichloroethane	0.0097	0.0045		mg/Kg-dry	1	6/21/2005
1,1-Dichloroethene	0.041	0.0045		mg/Kg-dry	1	6/21/2005
cis-1,2-Dichloroethene	0.37	0.26		mg/Kg-dry	50	6/21/2005
trans-1,2-Dichloroethene	0.061	0.0045		mg/Kg-dry	1	6/21/2005
1,2-Dichloropropane	ND	0.0045		mg/Kg-dry	1	6/21/2005
cis-1,3-Dichloropropene	ND	0.0045		mg/Kg-dry	1	6/21/2005
trans-1,3-Dichloropropene	ND	0.0045		mg/Kg-dry	1	6/21/2005
Ethylbenzene	0.33	0.26		mg/Kg-dry	50	6/21/2005
2-Hexanone	ND	0.009		mg/Kg-dry	1	6/21/2005
4-Methyl-2-pentanone	ND	0.009		mg/Kg-dry	1	6/21/2005
Methylene chloride	ND	0.009		mg/Kg-dry	1	6/21/2005
Methyl tert-butyl ether	ND	0.0045		mg/Kg-dry	1	6/21/2005
Styrene	ND	0.0045		mg/Kg-dry	1	6/21/2005
1,1,2,2-Tetrachloroethane	ND	0.0045		mg/Kg-dry	1	6/21/2005
Tetrachloroethene	0.0046	0.0045		mg/Kg-dry	1	6/21/2005
Toluene	0.31	0.26		mg/Kg-dry	50	6/21/2005
1,1,1-Trichloroethane	1.4	0.26		mg/Kg-dry	50	6/21/2005
1,1,2-Trichloroethane	ND	0.0045		mg/Kg-dry	1	6/21/2005
Trichloroethene	0.057	0.0045		mg/Kg-dry	1	6/21/2005
Vinyl chloride	0.092	0.0045		mg/Kg-dry	1	6/21/2005
Xylenes, Total	2	0.77		mg/Kg-dry	50	6/21/2005

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STAT Analysis Corporation
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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: June 24, 2005
Print Date: June 24, 2005

Client:	Camp, Dresser and McKee	**Client Sample ID:**	A4-4020104
Lab Order:	0506473	**Tag Number:**	
Project:	1681-40475, SE Rockford Area 4	**Collection Date:**	6/14/2005 8:45:00 AM
Lab ID:	0506473-001B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	**SW7471A**			Prep Date: **6/21/2005**		Analyst: **JG**
Mercury	ND	0.028		mg/Kg-dry	1	6/21/2005
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **6/16/2005**		Analyst: **JG**
Aluminum	9200	1100		mg/Kg-dry	500	6/24/2005
Antimony	ND	2.3		mg/Kg-dry	10	6/17/2005
Arsenic	3.3	0.57		mg/Kg-dry	10	6/17/2005
Barium	110	1.1		mg/Kg-dry	10	6/17/2005
Beryllium	ND	0.57		mg/Kg-dry	10	6/17/2005
Cadmium	ND	0.57		mg/Kg-dry	10	6/17/2005
Calcium	ND	3400		mg/Kg-dry	500	6/24/2005
Chromium	13	1.1		mg/Kg-dry	10	6/17/2005
Cobalt	5.3	1.1		mg/Kg-dry	10	6/17/2005
Copper	14	2.8		mg/Kg-dry	10	6/17/2005
Iron	12000	34		mg/Kg-dry	10	6/17/2005
Lead	14	0.57		mg/Kg-dry	10	6/17/2005
Magnesium	2400	34		mg/Kg-dry	10	6/17/2005
Manganese	490	1.1		mg/Kg-dry	10	6/17/2005
Nickel	9.2	1.1		mg/Kg-dry	10	6/17/2005
Potassium	650	34		mg/Kg-dry	10	6/17/2005
Selenium	ND	1.1		mg/Kg-dry	10	6/17/2005
Silver	ND	1.1		mg/Kg-dry	10	6/17/2005
Sodium	1300	68		mg/Kg-dry	10	6/17/2005
Thallium	ND	1.1		mg/Kg-dry	10	6/17/2005
Vanadium	24	1.1		mg/Kg-dry	10	6/17/2005
Zinc	40	5.7		mg/Kg-dry	10	6/17/2005
Polynuclear Aromatic Hydrocarbons	**SW8270C-SIM (SW3550B)**			Prep Date: **6/20/2005**		Analyst: **VS**
Acenaphthene	0.15	0.056		mg/Kg-dry	1	6/23/2005
Acenaphthylene	0.057	0.056		mg/Kg-dry	1	6/23/2005
Anthracene	0.064	0.056		mg/Kg-dry	1	6/23/2005
Benz(a)anthracene	ND	0.056		mg/Kg-dry	1	6/23/2005
Benzo(a)pyrene	ND	0.056		mg/Kg-dry	1	6/23/2005
Benzo(b)fluoranthene	ND	0.056		mg/Kg-dry	1	6/23/2005
Benzo(g,h,i)perylene	ND	0.056		mg/Kg-dry	1	6/23/2005
Benzo(k)fluoranthene	ND	0.056		mg/Kg-dry	1	6/23/2005
Chrysene	ND	0.056		mg/Kg-dry	1	6/23/2005
Dibenz(a,h)anthracene	ND	0.056		mg/Kg-dry	1	6/23/2005
Fluoranthene	0.083	0.056		mg/Kg-dry	1	6/23/2005
Fluorene	0.28	0.056		mg/Kg-dry	1	6/23/2005

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Lab ID:	0506473-001B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Polynuclear Aromatic Hydrocarbons	**SW8270C-SIM (SW3550B)**			Prep Date: **6/20/2005**		Analyst: **VS**
Indeno(1,2,3-cd)pyrene	ND	0.056		mg/Kg-dry	1	6/23/2005
Naphthalene	*1.4*	*0.56*		*mg/Kg-dry*	*10*	*6/23/2005*
Phenanthrene	0.87	0.56		mg/Kg-dry	10	6/23/2005
Pyrene	0.11	0.056		mg/Kg-dry	1	6/23/2005
Cyanide, Total	**SW9012A**			Prep Date: **6/20/2005**		Analyst: **YZ**
Cyanide	ND	0.3		mg/Kg-dry	1	6/20/2005
Percent Moisture	**D2974**			Prep Date: **6/21/2005**		Analyst: **JC**
Percent Moisture	15.3	0.01	*	wt%	1	6/22/2005

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e-mail address: STATinfo@STATAnalysis.com AIHA 10248, NVLAP 101202-0, NEALP 100445

CHAIN OF CUSTODY RECORD

Nº: 809081 Page : 1 of 1

Company: C.Dm
Project Number: 1681-40475 Client Tracking No.:
Project Name: SE Rockford Area 4
Location/Address:
Sampler(s): Shawn Shiffer
Report To: Shawn Shiffer Phone: 312-346-6000
QC Level: 1 ____ 2 ____ 3 ____ 4 ____ Fax: 312-345-528
Regulatory Program: NPEDS/MWRD RCRA SDWA SRP TACO Other: —

P.O. No.:
Quote No.:

Turn Around: Standard
Results Needed: / / am/pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab	Preserv.	No. of Containers	VOC	PNA	TAL Metals	Remarks	Lab No.:
~~A4-GP~~												
A4-4020104	6/14/05	8:45	soil		X	F	5	X	X	X	Keep any unused sample for additional analysis that may be required	001

Relinquished by: (Signature) Shawn Shiffer Date/Time: 1840
Received by: (Signature) Date/Time:
Relinquished by: (Signature) Date/Time:
Received for lab by: (Signature) Jessica Carter Date/Time: 6/15/05 1100
Relinquished by: (Signature) Date/Time:

Laboratory Use: **Sample Verification:**

		Yes	No
- Container OK		X	
- Samples Leaking			X
- Refrigerated (Temp: 2 °C)		X	
- Sample Labels Match Sample ID		X	

Work Order No.: 0506473 0506439 LC

Preservation Code:
A = None B = HNO_3 C = NaOH
D = H_2SO_4 E = HCl F = 5035/EnCore

STAT Analysis Corporation

Sample Receipt Checklist

Client Name CDM | Date and Time Received: 06/15/05

Work Order Numbe 0506473 | Received by: JC

Checklist completed by: Jesus Cant 6/15/05 (Signature / Date) | Reviewed by: (Initials) 6/23/05 (Date)

Matrix | Carrier name FedEx

Shipping container/cooler in good condition?	Yes ✓	No	Not Present
Custody seals intact on shippping container/cooler?	Yes	No	Not Present ✓
Custody seals intact on sample bottles?	Yes	No	Not Present ✓
Chain of custody present?	Yes ✓	No	
Chain of custody signed when relinquished and received?	Yes ✓	No	
Chain of custody agrees with sample labels?	Yes ✓	No	
Samples in proper container/bottle?	Yes ✓	No	
Sample containers intact?	Yes ✓	No	
Sufficient sample volume for indicated test?	Yes ✓	No	
All samples received within holding time?	Yes ✓	No	
Container or Temp Blank temperature in compliance?	Yes ✓	No	Temperature 2 °C
Water - VOA vials have zero headspace?	No VOA vials submitted	Yes	No
Water - Samples properly preserved/ pH checked?	Yes	No	

Adjusted? Checked by

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted | Date contacted: | Person contacted

Contacted by: | Regarding

Comments:

Corrective Action

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Gerald Kraemer
RW Collins Company
7225 West 66th Street
Chicago, IL 60638

June 30, 2005

RE: CDM - Rockford

Lab Orders:
05060465

Dear Mr. Kraemer:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-324-3320.

Sincerely,

Shawn D. Lane
Project Manager

Approved by,

Mitchell Ostrowski
Laboratory Director

State of Illinois Chemical Analysis in Drinking Water Accredited Lab. No. 100258
State of Wisconsin Wastewater and Hazardous Waste No. 999888890

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CLIENT: RW Collins Company

Project: CDM - Rockford

Lab Order: 05060465

Date: *30-Jun-05*

CASE NARRATIVE

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results are indicated by the notation "dry" in the Units column.

Accreditation by the State of Illinois is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; Methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

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CLIENT: RW Collins Company

Project: CDM - Rockford

Lab Order: 05060465

Date: *30-Jun-05*

CASE NARRATIVE

Analytical Comments for METHOD 1311_BNEW, MB-25483 and LCS-25483: The recovery of Pentachlorophenol (77.93%) in the check standard was below the 80% limit.

Analytical Comments for METHOD 1311_V, K179033: Vinyl chloride recovery in the CCV was above the 120% recovery limit.

Analytical Comments for METHOD 8260_S, 05060465-01A: Surrogate recoveries were outside of the laboratory acceptance range for 1,2-Dichloroethane-d4 and Dibromofluoromethane due to possible matrix suppression.

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Report of Laboratory Analysis

CLIENT:	RW Collins Company	**Client Sample**	WC-1
Lab Order:	05060465	**Report Date:**	6/30/2005
Project:	CDM - Rockford	**Collection**	6/16/2005
Lab ID:	05060465-01	**Matrix:**	Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Chemical Oxygen Demand on SESW Extraction		**Method:**		**HACH 8000 / D3987-85**			
Chemical Oxygen Demand	65	10		mg/L	6/27/05	25482	CS2
Corrosivity by pH		**Method:**		**SW9045C**			
pH	6.8			pH Units	6/22/05 08:10	R82152	RM2
Cyanide, Reactive		**Method:**		**SW7.3.3.2/9014**			
Reactive Cyanide	< 2	2	C	mg/Kg	6/23/05	25430	LP
Extracted Organic Halogens		**Method:**		**SW9023**			
Extractible Organic Halides (EOX)	< 5	5		mg/Kg	6/29/05	R82409	LP
Free Liquid		**Method:**		**SW9095**			
Free Liquid	Pass			Pass/Fail	6/22/05	R82156	RM2
NALP Test		**Method:**		**WAP-A**			
NALP	Pass		C	No unit	6/22/05 11:30	R82171	VT
Odor		**Method:**		**D4979-89**			
Odor	like rotten material		C	No unit	6/22/05	R82157	RM2
Oil and Grease (HEM) SESW Extracted		**Method:**		**E1664 / D3987-85**			
Oil and Grease (HEM)	< 10	10		mg/L	6/27/05	25482	TTT
Open Cup Flash Point		**Method:**		**D92-90**			
Ignitibility (open cup)	>180	35	C	°F	6/22/05	R82172	RM2
Oxidizers, Screen On SESW Extraction		**Method:**		**D4981-89 / D3987-85**			
Oxidizers	Negative		C	Positive/	6/24/05	25482	DFD
Phenolics		**Method:**		**SW9065**			
Phenolics, Total Recoverable	< 51.5	51.5		mg/kg	6/23/05	25441	IT
Physical Appearance		**Method:**		**D4979-89**			
Physical Appearance	black soil		C	No unit	6/22/05	R82158	RM2
SESW Extracted Ammonia as N		**Method:**		**E350.2**			
Nitrogen, Ammonia (As N)	1.8	0.4		mg/L	6/28/05	25517	IT
SESW Extracted Cyanide, Total		**Method:**		**M4500 /E335.2**			
Cyanide	< 0.05	0.05		mg/L	6/27/05	25494	IT
Sulfide, Reactive		**Method:**		**SW7.3.4.2**			
Reactive Sulfide	< 10	10	C	mg/Kg	6/23/05	R82199	LP

Qualifiers:

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J - Analyte detected below quantitation limits

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Report of Laboratory Analysis

CLIENT:	RW Collins Company	**Client Sample**	WC-1
Lab Order:	05060465	**Report Date:**	6/30/2005
Project:	CDM - Rockford	**Collection**	6/16/2005
Lab ID:	05060465-01	**Matrix:**	Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
ICP Metals, TCLP Extracted		**Method:**	**SW6010B / SW3015**			
Arsenic	< 0.1	0.1	mg/L	6/27/05	25439	ES
Barium	0.65	0.1	mg/L	6/27/05	25439	ES
Cadmium	< 0.1	0.1	mg/L	6/27/05	25439	ES
Chromium	< 0.1	0.1	mg/L	6/27/05	25439	ES
Copper	< 0.1	0.1	mg/L	6/27/05	25439	ES
Lead	< 0.1	0.1	mg/L	6/28/05	25439	ES
Nickel	< 0.1	0.1	mg/L	6/27/05	25439	ES
Selenium	< 0.1	0.1	mg/L	6/27/05	25439	ES
Silver	< 0.1	0.1	mg/L	6/27/05	25439	ES
Zinc	0.135	0.1	mg/L	6/27/05	25439	ES
Mercury, TCLP Extracted		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	6/23/05	25450	IG
pH on SESW Extraction		**Method:**	**E150.1 / D3987-85**			
pH	8.44		pH units	6/24/05	25482	DFD
Polychlorinated biphenyls (PCBs)		**Method:**	**SW8082 / SW3540C**			
Aroclor 1016	< 363	363	µg/Kg	6/22/05 17:21	25404	VD
Aroclor 1221	< 363	363	µg/Kg	6/22/05 17:21	25404	VD
Aroclor 1232	< 363	363	µg/Kg	6/22/05 17:21	25404	VD
Aroclor 1242	< 363	363	µg/Kg	6/22/05 17:21	25404	VD
Aroclor 1248	< 363	363	µg/Kg	6/22/05 17:21	25404	VD
Aroclor 1254	< 363	363	µg/Kg	6/22/05 17:21	25404	VD
Aroclor 1260	< 363	363	µg/Kg	6/22/05 17:21	25404	VD
Surrogates:						
2,3,4,4',5,6-Hexachlorobiphenyl	129	28.5-155	%REC	6/22/05 17:21	25404	VD
3,5-Dichlorobiphenyl	150	35.1-179	%REC	6/22/05 17:21	25404	VD
Semivolatile Organic Compounds, TCLP		**Method:**	**SW1311/8270C / SW3510C**			
1,4-Dichlorobenzene	< 7.5	7.5	mg/L	6/26/05 12:08	25483	GO
2,4,5-Trichlorophenol	< 400	400	mg/L	6/26/05 12:08	25483	GO
2,4,6-Trichlorophenol	< 2	2	mg/L	6/26/05 12:08	25483	GO
2,4-Dinitrotoluene	< 0.13	0.13	mg/L	6/26/05 12:08	25483	GO
Hexachlorobenzene	< 0.13	0.13	mg/L	6/26/05 12:08	25483	GO
Hexachlorobutadiene	< 0.5	0.5	mg/L	6/26/05 12:08	25483	GO
Hexachloroethane	< 3	3	mg/L	6/26/05 12:08	25483	GO
m,p-Cresol	< 200	200	mg/L	6/26/05 12:08	25483	GO
Nitrobenzene	< 2	2	mg/L	6/26/05 12:08	25483	GO
o-Cresol	< 200	200	mg/L	6/26/05 12:08	25483	GO

Qualifiers:

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Report of Laboratory Analysis

CLIENT:	RW Collins Company	**Client Sample**	WC-1
Lab Order:	05060465	**Report Date:**	6/30/2005
Project:	CDM - Rockford	**Collection**	6/16/2005
Lab ID:	05060465-01	**Matrix:**	Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Pentachlorophenol	< 100	100		mg/L	6/26/05 12:08	25483	GO
Pyridine	< 5	5		mg/L	6/26/05 12:08	25483	GO
Cresols, total	< 200	200		mg/L	6/26/05 12:08	25483	GO
Surrogates:							
2,4,6-Tribromophenol	85.6	5-154		%REC	6/26/05 12:08	25483	GO
2-Fluorobiphenyl	46.9	5-111		%REC	6/26/05 12:08	25483	GO
2-Fluorophenol	43.9	5-99.1		%REC	6/26/05 12:08	25483	GO
Nitrobenzene-d5	59.8	5-97.5		%REC	6/26/05 12:08	25483	GO
Phenol-d5	36.5	5-87.2		%REC	6/26/05 12:08	25483	GO
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5030A**			
1,1,1-Trichloroethane	1330	814		µg/Kg	6/30/05 11:28	25563	SSK
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 33.2	33.2	C	µg/Kg	6/29/05 10:36	25535	SSK
1,1,2-Trichloroethane	< 16.6	16.6		µg/Kg	6/29/05 10:36	25535	SSK
1,2-Dichlorobenzene	< 16.6	16.6		µg/Kg	6/29/05 10:36	25535	SSK
Chlorobenzene	< 16.6	16.6		µg/Kg	6/29/05 10:36	25535	SSK
Methylene chloride	< 15.0	15.0		µg/Kg	6/29/05 10:36	25535	SSK
Tetrachloroethene	< 16.6	16.6		µg/Kg	6/29/05 10:36	25535	SSK
Trichloroethene	< 16.6	16.6		µg/Kg	6/29/05 10:36	25535	SSK
Trichlorofluoromethane	< 16.6	16.6		µg/Kg	6/29/05 10:36	25535	SSK
Surrogates:							
1,2-Dichloroethane-d4	84.0	66-126		%REC	6/29/05 10:36	25535	SSK
4-Bromofluorobenzene	119	60-122		%REC	6/29/05 10:36	25535	SSK
d4-1,2-Dichlorobenzene	85.9	66-121		%REC	6/29/05 10:36	25535	SSK
Dibromofluoromethane	100	65-124		%REC	6/29/05 10:36	25535	SSK
Fluorobenzene	90.0	65-134		%REC	6/29/05 10:36	25535	SSK
Toluene-d8	84.6	65-131		%REC	6/29/05 10:36	25535	SSK
Volatile Organic Compounds, TCLP		**Method:**		**SW1311/8260B / SW5030A**			
1,1-Dichloroethene	< 0.35	0.35		mg/L	6/29/05 11:12	25537	SSK
1,2-Dichloroethane	< 0.25	0.25		mg/L	6/29/05 11:12	25537	SSK
1,4-Dichlorobenzene	< 3.75	3.75		mg/L	6/29/05 11:12	25537	SSK
2-Butanone	< 100	100		mg/L	6/29/05 11:12	25537	SSK
Benzene	< 0.25	0.25		mg/L	6/29/05 11:12	25537	SSK
Carbon tetrachloride	< 0.25	0.25		mg/L	6/29/05 11:12	25537	SSK
Chlorobenzene	< 50	50		mg/L	6/29/05 11:12	25537	SSK
Chloroform	< 3	3		mg/L	6/29/05 11:12	25537	SSK
Tetrachloroethene	< 0.35	0.35		mg/L	6/29/05 11:12	25537	SSK
Trichloroethene	< 0.25	0.25		mg/L	6/29/05 11:12	25537	SSK
Vinyl chloride	< 0.1	0.1		mg/L	6/29/05 11:12	25537	SSK

Qualifiers:

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Report of Laboratory Analysis

CLIENT:	RW Collins Company	**Client Sample**	WC-1
Lab Order:	05060465	**Report Date:**	6/30/2005
Project:	CDM - Rockford	**Collection**	6/16/2005
Lab ID:	05060465-01	**Matrix:**	Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Surrogates:						
1,2-Dichloroethane-d4	78.8	65-146	%REC	6/29/05 11:12	25537	SSK
4-Bromofluorobenzene	116	60-128	%REC	6/29/05 11:12	25537	SSK
d4-1,2-Dichlorobenzene	88.2	54-121	%REC	6/29/05 11:12	25537	SSK
Dibromofluoromethane	90.3	45-126	%REC	6/29/05 11:12	25537	SSK
Fluorobenzene	89.0	65-139	%REC	6/29/05 11:12	25537	SSK
Toluene-d8	83.1	65.3-139	%REC	6/29/05 11:12	25537	SSK

Qualifiers:

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Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

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www.emt.com

TURNARAOUND TIME:
☐ RUSH
____ day turnaround
☒ ROUTINE

Due Date: ____-____-____ COC #: 01509

Company: RW Collins
Address: 7225 W. 66th St.
Chicago IL 60638

Phone #: (708) 458-6868 Fax #: (708) 458-6870
P.O. #: ____ Proj.#: ____-____
Client Contact: JERRY KRAEMER
Project ID / Location: CDM-Rockford

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater ____

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH ____

Analyses

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	Sampling pH	Sampling Temp.	Preservation Field	Preservation Lab	Haz Waste Character	EMT WORKORDER
WC-1		1 LT		2								*	01A

* will call w/ parameters

EMT USE ONLY

Relinquished By: S. Kraemer	Date: 6-16-05 Time: 1145 am	Received By:	Date: 6-16-05 Time: 1145	EMT USE ONLY Client Code: COLLINS	☒ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: 6-16-05 Time: :	Received By:	Date: - - Time: :	EMT Project I.D.	☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: 6-16-05 Time: 5:30	Jar Lot No.	EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

Attachment 3

Vapor Suppressant Foam Information

PRODUCT DATA SHEET

LONG DURATION FOAM AC-645

GENERAL DESCRIPTION

AC-645 Long Duration Foam is a patented product which produces a thick, long-lasting, viscous foam barrier for immediate control of dust, odors and volatile organic compounds (VOCs). AC-645 is designed for use with Rusmar Pneumatic Foam Units.

AC-645 foam is recognized by the Environmental Protection Agency and the U.S. Army Corps of Engineers as providing superior emission control for a period up to 17 hours. AC-645 has been specified for use at Superfund and other hazardous waste sites across the United States and Canada.

FEATURES

- Biodegradable
- Will not add to treatment costs
- No ambient temperature limitations
- Easy to use
- More effective than tarps
- Non-reactive
- Non-hazardous
- Safe for workers and the environment
- Requires only water dilution
- No clean up necessary
- Non-combustible
- Covers any contamination source

APPLICATIONS

The primary application for AC-645 is control of odors, VOCs and dust during active excavation and for overnight coverage of contaminated soils at hazardous waste sites. AC-645 can also be applied on top of liquid surfaces.

SPECIAL ODOR CONTROL PROBLEMS

The remediation of hazardous waste sites often includes excavation of soil contaminated with odorous compounds. AC-645 has little or no odor itself, although a pleasant wintergreen or vanilla scent can be added. It forms a barrier between contaminants and the atmosphere and can be applied during active excavation to provide an immediate and effective barrier to minimize odors. It is completely biodegradable and poses no threat to workers, neighboring residents or ground water. AC-645 will not add to soil volume or treatment costs.

RUSMAR INCORPORATED • 216 Garfield Avenue • West Chester, PA 19380
Toll Free: 1.800.SEE.FOAM • P: 610.436.4314 • F: 610.436.8436 • www.rusmarinc.com

PRODUCT DATA SHEET

LONG DURATION FOAM AC-645

AC-645 can also be applied on top of trucks for emission control during transport of materials such as contaminated soils or sewage sludge. Ammonia tests performed on trucks containing sewage sludge resulted in a drop of concentration levels from 170 ppm prior to foaming down to 6 ppm after coverage with AC-645.

- Minimizes worker exposure
- Maintains fence-line odor and VOC emission limits
- Works on lagoon and pond closures
- Can be applied to near vertical or liquid surfaces

FUGITIVE DUST

At hazardous waste sites, fugitive dust can present a health hazard. AC-645 can be applied on top of the dusty material to prevent any wind-borne emissions. There is no need to mobilize equipment to immediately cover with soil or tarps. The Pneumatic Foam Unit can be filled and placed at the site to be used at a moment's notice.

EMERGENCY SPILL CLEAN UP

In emergency spills, odor and VOC control is often difficult because of the terrain and accident conditions. AC-645 Long Duration Foam can be applied to any shaped object, as well as steep slopes, water, mud, snow and ice. It is non-flammable and non-reactive - difficult spill problems can be accommodated.

METHOD OF APPLICATION

AC-645 Long Duration Foam is supplied in either 450 pound (55 gal.) drums or by bulk load (approximately 46,000 pounds). Bulk shipments can be stored outside in a Rusmar Bulk Storage-Dilution System. The Bulk Storage and Dilution system is comprised of a 7000 gallon heated and stirred chemical storage tank and a microprocessor to accurately dilute and transfer the chemical. AC-645 is designed to be applied with a Rusmar Pneumatic Foam Unit. The Pneumatic Foam Units are available in a variety of sizes to accommodate a range of site conditions and application needs.

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MATERIAL SAFETY DATA SHEET

LONG DURATION FOAM AC-645

SECTION I: GENERAL INFORMATION

- Manufacturer's Name: RUSMAR INCORPORATED
- Manufacturer's Address: 216 Garfield Avenue • West Chester, PA 19380
- Manufacturer's Phone No.: 610-436-4314
- Chemical Family: Aqueous anionic surfactant mixture
- Trade Name: RUSMAR AC-645

SECTION II: HAZARDOUS INGREDIENTS

- Paints, Preservatives, and Solvents - None
- Alloys and Metallic Coatings - None
- Hazardous Mixtures and Other Materials - None

SECTION III: PHYSICAL DATA

- Boiling Point: 100° C
- Vapor Pressure: 25mm Hg at 25° C
- Vapor Density (Air = 1): N/A
- Specific Gravity: 1.01 to 1.06
- % Volatile, By Volume: None
- Evaporation Rate: N/A
- Water Solubility: Complete
- Appearance/Odor: Translucent, white, milk-like, odorless, viscous liquid

SECTION IV: FIRE AND EXPLOSION HAZARD DATA

- Flash Point (Method): Nonflammable
- Flammable Limits: N/A
- Extinguishing Media: N/A
- Special Fire Fighting Procedures: None
- Unusual Fire and/or Explosion Hazards: None

SECTION V: HEALTH HAZARD DATA

- Threshold Limit Value: Not Determined
- Effects of Overexposure: This material is not expected to present an inhalation or ingestion hazard. It may cause an eye or skin irritation upon direct contact.
- Emergency and First Aid Procedures: Wash thoroughly with clean water

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MATERIAL SAFETY DATA SHEET

LONG DURATION FOAM AC-645

SECTION VI: REACTIVITY DATA

- Material is stable
- No material incompatibility
- Hazardous Decomposition Products: Low levels of sulfur oxides on exposure to high temperatures (concentrate). Foam is non-combustible.
- Polymerization will not occur

SECTION VII: SPILL OR LEAK PROCEDURES

- Steps to be taken in case material is released or spilled: If spilled indoors on a hard surface, the spill area may be slippery and should be thoroughly washed with water. Contain spill and absorb material with dirt or other appropriate absorbent.
- Waste Disposal Method: This material is completely biodegradable and can be disposed of in a sanitary landfill according to local regulations.

SECTION VIII: SPECIAL PROTECTION INFORMATION

- Respiratory Protection: None required for normal operations
- Ventilation: No special requirements
- Protective Gloves: Not required, but recommended
- Eye Protection: Not required, but recommended
- Other Protective Equipment: None

SECTION IX: SPECIAL PRECAUTIONS

- Storing/Handling Precautions: Avoid excessive heat. Material will freeze, but thawing will not cause changes in the product.
- Other Precautions: None

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